Important Information 2004
Stormwater and Irrigation Runoff
Implementing Best Management Practices

Water resources are important to everyone. Whether playing at the beach, fishing in a river, irrigating crops or quenching a thirst, we all want our water to be clean and safe. The Regional Water Quality Control Board requires the County of San Diego and each city in the county to take measures to protect the region's waters from pollution. Protecting our bays, beaches, lagoons and rivers is a responsibility we all share.

Some of the common sources of pollution include:

Sediment is a common component of stormwater and irrigation runoff and can be a pollutant. Sediment can harm aquatic life by interfering with respiration, growth, and reproduction. Sediment can transport other contaminants, such as nutrients and pesticides that become attached.

Nutrients, primarily nitrogen and phosphorus, used in landscaping and agriculture, are commonly found in stormwater and irrigation runoff. These nutrients cause excessive growth of algae and other vegetation. The vegetation consumes oxygen in the water making it unavailable for aquatic wildlife.

Metals from old equipment, automobiles and artificial surfaces, such as galvanized metal, paint or preserved wood, contain metals that enter storm-water as the surfaces corrode, dissolve, decay and leach. Metals including zinc, copper, chromium and nickel are toxic to aquatic animals such as fish and can contaminate drinking water supplies.

Oil and Grease are materials toxic to aquatic animals at very low concentrations. Equipment leakage, fueling spills, equipment cleaning, hydraulic systems and waste oils disposal are common sources of these contaminants.

Gross Pollutants, typically in the form of trash, debris, and floatables, are materials that come from the urban environment, industrial and construction sites creating "eye sores." Materials, such as animal waste, green waste and other organic matter, may contain viruses, bacteria, and consume oxygen making it unavailable for aquatic wildlife.

Reducing the pollutants in stormwater and irrigation runoff is a responsibility we all share. The following are some **Best Management Practices** you can use to minimize contaminants in Stormwater and Irrigation Runoff.

Materials Storage areas should keep dry fertilizer and other substances with potential to contaminate runoff, off the ground and covered. Provide secondary containment for hazardous liquids in bulk quantities, such as, gasoline and diesel. Drain fluids from retired vehicles.

Spill Kits made up of brooms, absorbents, dust pans, trash cans and other necessary materials should be kept at all sites of potential spills. These include loading docks, pesticide storage areas, vehicle and equipment repair areas, fueling sites and waste collection areas.

Illegal Connections to storm drains do not carry runoff to a wastewater treatment facility. They empty into our rivers, bays, lagoons and the ocean. Map your property and know where the drains on your property discharge. Contact your sewering agency and determine if you can obtain a connection to the sanitary sewer system.

Irrigation management includes turning off automatic irrigation systems during the rainy season. Establish a water budget using the California Irrigation Management Information System at www.cimis.water.ca.gov. Use drip irrigation or hand irrigating. Install low pressure shut off valves to prevent system drainage, as it will save water, reduce runoff and control pathogens.

Fertilizer use requires knowing the nutrient needs of the crop or commodity you are growing. Use leaf tissue analysis to determine your crop's nutrient needs. Calibrate your application equipment, and use slow release fertilizer formulations. Apply smaller amounts of fertilizers at more frequent intervals.

Solid Waste management means keeping trash storage and disposal areas clean and free of debris. Close dumpsters and other containers when not in use. Since dumpsters leak, they are not appropriate for liquid waste. Inspect these areas at least weekly. Remove or contain accumulations of loose soil. Use native plants with low water requirements. Stabilize graded areas with fiber mats, fiber rolls, geo-textiles or hydro-seeding, erect silt fences or construct berms.

Resources:

Mission Resource Conservation District-760-728-1332, Ag Water Management Plans, Irrigation Uniformity Assessments (Vic Smothers)

Natural Resources Conservation Services- 760-745-2061 EQIP Grants, Conservation Plans, Technical and Engineering Services, (Jason Jackson)

U. C. Cooperative Extension Service- 858-694-3393, Runoff Self Assessment, Ag Water Quality Record Management, Workshops and site visits. http://cesandiego.ucdavis.edu (Diane De Jong)

San Diego County Water Authority: 858-522-6760, Commercial, Institutional, Industrial Voucher Program, Professional Assistance for Landscape Management Program (Vicki Driver) www.sdcwa.org

County of San Diego, Department of Agriculture, Weights & Measures, 858-694-3122, Agricultural Water Quality Program, (Paul Davy) www.sdcawm.org